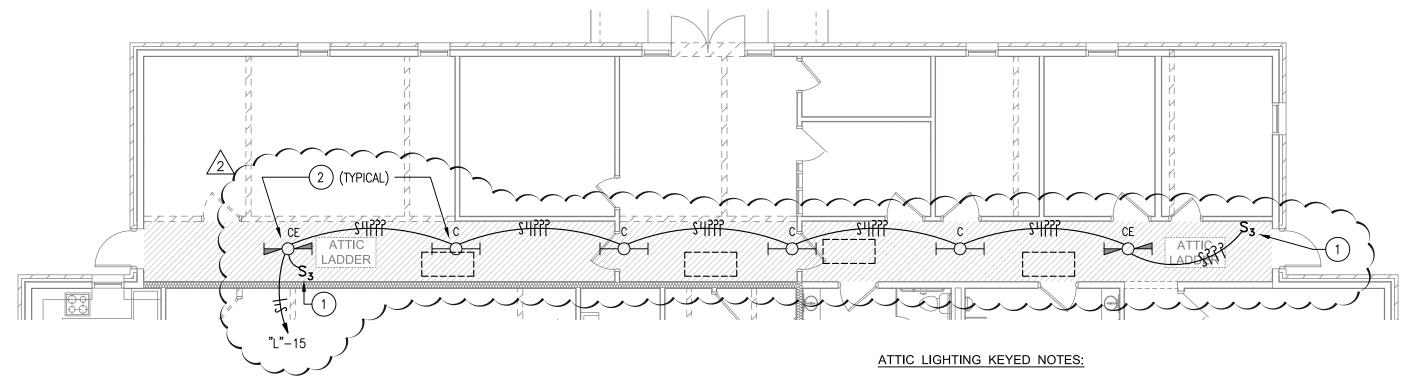
| | | | LIC | GHT | FIXTURE | SCH | HEDULE | |
|--------|--------------|--|----------|-----|---|-----|------------------------------|--|
| TYPE | MANUFACTURER | CATALOG NO. | VOLTS | QTY | LAMPS TYPE | QTY | BALLASTS TYPE | REMARKS |
| Α | CREE | #CR24-40L-40K-S | 120V | | 4000 LUMEN LED PACKAGE INTEGRAL TO FIXTURE | | | 2'x4' RECESSED GRID LED TROFFER |
| AE | CREE | #CR24-40L-40K-S-EB14 | 120V | | 4000 LUMEN LED PACKAGE JOTEGRAL JO FIXTURE | | | 2'x4' RECESSED GRID LED TROFFER WITH EMERGENCY BACKUP |
| A2 | CREE | #CR24-40L-40K-S-DGA24-WHT-1PK | 120V | | 4000 LUMEN LED PACKAGE INTEGRAL TO FIXTURE | | | 2'x4' RECESSED FLANGE LED TROFFER |
| B | CREE | #CR24-31L-40K-S | 120V | | 3100 LUMEN LED PACKAGE INTEGRAL TO FIXTURE | | | 2'x4' RECESSED GRID LED TROFFER |
| BE | CREE | #CR24-31L-40K-S-EB14 | 120V | | 3100 LUMEN LED PACKAGE INTEGRAL TO FIXTURE | | | 2'x4' RECESSED GRID LED TROFFER WITH EMERGENCY BACKUP |
| B2 | CREE | #CR24-31L-40K-S-DGA24-WHT-1PK | 120V | | 3100 LUMEN LED PACKAGE INTEGRAL TO FIXTURE | | | 2'x4' RECESSED FLANGE LED TROFFER |
| B2E | CREE | #CR24-31L-40K-S-EB14-DGA24-WHT-1PK | 120V | | 3100 LUMEN LED PACKAGE INTEGRAL TO FIXTURE | | | 2'x4' RECESSED FLANGE LED TROFFER WITH EMERGENCY BACKUP |
|) C | CREE | #LS4-40L-40K | 120V | | 4000 LUMEN LED PACKAGE INTEGRAL TO FIXTURE | | | 4' LED STRIP FIXTURE |
| CE | CREE | #LS4-40L-40K-EB14 | 120V | | 4000 LUMEN LED PACKAGE INTEGRAL TO FIXTURE | | | 4' LED STRIP FIXTURE WITH EMERGENCY BACKUP |
| D | WILLIAMS | #ICLED60-OS15/840-CS-NB/TB (AS REQ'ED)- EDD*OS-120 | 120V | | 1500 LUMEN LED PACKAGE INTEGRAL TO FIXTURE | | | LED IC RATED DOWNLIGHT |
| DE | WILLIAMS | ##ICLED60-OS15/840-CS-NB/TB (AS REQ'ED)- EDD*OS-120-EM | 120V | | 1500 LUMEN LED PACKAGE INTEGRAL TO FIXTURE | | | LED IC RATED DOWNLIGHT WITH EMERGENCY BACKUP |
| E | CREE | #CR24-50L-40K-S | 120V | | 5000 LUMEN LED PACKAGE INTEGRAL TO FIXTURE | | | 2'x4' RECESSED GRID LED TROFFER |
| E2 | CREE | #CR24-50L-40K-S-DGA24-WHT-1PK | 120V | | 5000 LUMEN LED PACKAGE INTEGRAL TO FIXTURE | | | 2'x4' RECESSED FLANGE LED TROFFER |
| FE | CD LIGHTING | #VFT-24-332-120-EBH-15PG-EM | 120V | 3 | F032/835 | 1 | 3-LAMP BALLAST PROGRAM START | 2'x4' RECESSED FLANGED SECURITY/HIGH ABUSE FLUORESCENT TROFFER WITH EMERGENCY BALLAST |
| G | CREE | #CR24-40L-40K-S/SMK-CR24 | 120V | | 4000 LUMEN LED PACKAGE INTEGRAL TO FIXTURE | 1 | BODINE B50 | 2'x4' SURFACE MOUNTED LED TROFFER |
| Н | CREE | #CR24-50L-40K-S/SMK-CR24 | 120V | | 5000 LUMEN LED PACKAGE INTEGRAL TO FIXTURE | | | 2'x4' SURFACE MOUNTED LED TROFFER |
| J1 | PRUDENTIAL | #P83-LED-REG4-LED4-HO-R4-BLW-OL- SC-120-X1 | 120V | | 700 LUMEN/FT LED PACKAGE | | | WALL MOUNTED, CEILING RECESSED LED PERIMETER TROUGH SYSTEM RUN WALL-TO-WALL, FILLER KIT(S) PROVIDE THE NECESSARY ADJUSTMENT ON END |
| J2 | PRUDENTIAL | #P83-LED-REG4-LED4-HO-R8-BLW-OL- SC-120-X1 | 120V | | INTEGRAL TO FIXTURE 700 LUMEN/FT LED PACKAGE | | | WALL MOUNTED, CEILING RECESSED LED PERIMETER TROUGH SYSTEM RUN WALL-TO-WALL, FILLER KIT(S) PROVIDE THE NECESSARY ADJUSTMENT ON END |
| J3 | PRUDENTIAL | #P83-LED-REG4-LED4-HO-R6-BLW-OL- SC-120-X1 | 120V | | INTEGRAL TO FIXTURE 700 LUMEN/FT LED PACKAGE | | | WALL MOUNTED, CEILING RECESSED LED PERIMETER TROUGH SYSTEM RUN WALL-TO-WALL, FILLER KIT(S) PROVIDE THE NECESSARY ADJUSTMENT ON END |
| K | CREE | #ESA-C10-WD-S-28-D-U-BK-SSGC-C-40K | 120V | | INTEGRAL TO FIXTURE 3064 LUMEN LED PACKAGE INTEGRAL TO FIXTURE | | | SURFACE MOUNTED BLACK CYLINDER LED DOWNLIGHT WITH SEMI-SPECULAR REFLECTOR |
| LE | WILLIAMS | #VWPV-LED32/740-T4-(CTBS)-EM/BSL722LT-UNV | 120/277V | | 3200 LUMEN LED PACKAGE INTEGRAL TO FIXTURE | | | LED EXTERIOR WALL PACK WITH FORWARD THROW OPTICS & EMERGENCY BACKUP, MOUNT 8'-0" AFF TO BOTTOM OF FIXTURE |
| М | WILLIAMS | #LEDSL60-OS30/840-EDD*OS-120 | 120277V | | 3000 LUMEN LED PACKAGE | | | LED SHOWER LIGHT FIXTURE |
| N1 | FINELITE | #HP-4 ID-4'-H0-H0-4000K-TG-120V- FA-SC-C4 | 120V | | INTEGRAL TO FIXTURE LED 3188 LUMENS UP 2725 LUMENS DN | | | SUSPENDED 4' LINEAR LED LIGHT FIXTURE — REFER TO NOTE ON LIGHTING PLAN FOR CABLE LENGTH/MOUNTING HEIGHT REQUIREMENTS |
| N2 | FINELITE | #HP-4 ID-8'-H0-H0-4000K-TG-120V- FA-MC-C4 | 120V | | LED 6376 LUMENS UP | | | SUSPENDED 8' LINEAR LED LIGHT FIXTURE — REFER TO NOTE ON LIGHTING PLAN FOR CABLE LENGTH/MOUNTING HEIGHT REQUIREMENTS — SWITCH UP AND DOWN |
| N2E | FINELITE | #HP-4 ID-8'-H0-H0-4000K-TG-120V- FA-MC-C4-EM | 120V | | 5450 LUMENS DN LED 6376 LUMENS UP | | | LEDS SEPARATELY AS INDICATED SUSPENDED 8' LINEAR LED LIGHT FIXTURE W/EMERG. BACKUP — REFER TO NOTE ON LIGHTING PLAN FOR CABLE LENGTH/MOUNTING HEIGHT REQUIREMENTS — SWITCH |
| Р | CREE | #FLD-EDG-40-AA-04-E-UL-BZ-525 | 208V | | 5450 LUMENS DN 7266 LUMEN, 40° FLOOD | | | UP AND DOWN LEDS SEPARATELY AS INDICATED GROUND MOUNTED FLOOD LIGHT WITH BARN DOORS |
| SL2 | CREE | #ARE-EDG-2M-DA-14-E-UL-BZ-525 (FIXTURE) #PS4S20C1BZ (POLE) | 208V | | LED PACKAGE 21321 LUMEN LED PACKAGE | | | SITE LIGHT FIXTURE WITH TYPE II OPTICS |
| SL3 | CREE | #ARE-EDG-3M-DA-14-E-UL-BZ-525 (FIXTURE) #PS4S20C1BZ (POLE) | 208V | | INTEGRAL TO FIXTURE 20213 LUMEN LED PACKAGE | | | SITE LIGHT FIXTURE WITH TYPE III OPTICS |
| SL4 | CREE | #ARE-EDG-4M-DA-14-E-UL-BZ-525 (FIXTURE) #PS4S20C1BZ (POLE) | 208V | | INTEGRAL TO FIXTURE 21321 LUMEN LED PACKAGE | | | SITE LIGHT FIXTURE WITH TYPE IV OPTICS |
| EM1 | LIGHTALARMS | #CAM-SD-B-FT-T1 | 120V | - | INTEGRAL TO FIXTURE LED INTEGRAL TO FIXTURE | | | SELF-CONTAINED BLACK LED EMERGENCY EGRESS FIXTURE WITH 5 MINUTE TIME DELAY |
| EM2 | LIGHTALARMS | #LCA1250-2LD7-CPS | 120V | - | LED INTEGRAL TO FIXTURE | | | SELF-CONTAINED LED EMERGENCY LIGHT FIXTURE WITH VANDAL RESISTANT SHIELD |
| X1 | LIGHTALARMS | #QLXN500-RN | 120V | - | LED INTEGRAL TO FIXTURE | | | SINGLE OR DOUBLE FACE, WALL, CEILING, OR END MOUNTED, (AS INDICATED ON PLANS), EXIT LIGHT, WITH OR WITHOUT DIRECTIONAL ARROWS, AS SHOWN ON PLANS, WITH BATTERY BACK-UP |

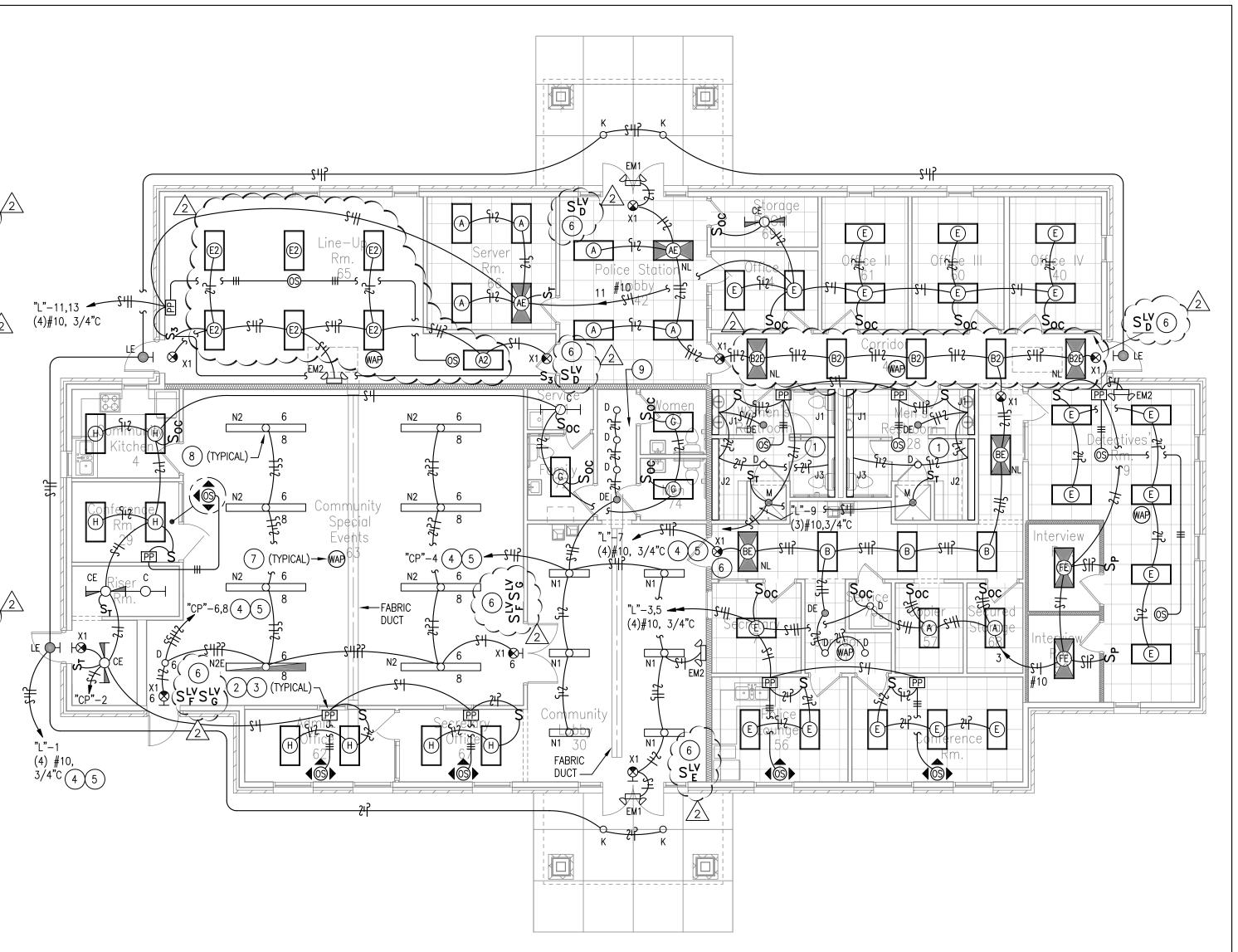
LIGHT FIXTURE SCHEDULE NOTES:

1. "CTBS" = COLOR TO BE SELECTED BY THE ARCHITECT.



2 PARTIAL FLOOR PLAN - ATTIC LIGHTING SCALE 1/8" = 1'-0"

- (1) SWITCH MOUNTED AT TOP OF ATTIC ACCESS LADDER FIELD-VERIFY OPTIMUM MOUNTING LOCATION FOR EASIEST ACCESS WHILE STANDING AT TOP OF LADDER.
- 2 ATTIC LIGHT FIXTURE MOUNTED ABOVE FLOORED AREAS FIELD-VERIFY OPTIMUM MOUNTING LOCATIONS AND COORDINATE WITH STRUCTURAL MEMBERS AND MECHANICAL EQUIPMENT.



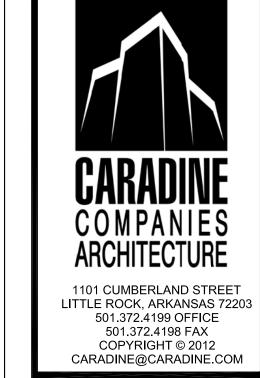
1 FLOOR PLAN - LIGHTING SCALE 1/8" = 1' - 0"

LIGHTING KEYED NOTES:

- 1) REFER TO "RECESSED PERIMETER LIGHT FIXTURE DETAIL" ON SHEET E6.01 FOR FIXTURE TYPE "J" MOUNTING DETAIL. FIXTURE TYPE "J" IS FLUORESCENT LINEAR WALL MOUNTED, RECESSED CEILING FIXTURE THAT RUNS WALL-TO-WALL - ADJUSTABLE SLEEVES ARE PROVIDED FOR FIXTURE ENDS TO ADJUST LENGTH TO EXACT WALL-TO-WALL DIMENSION.
- 2 REFER TO OCCUPANCY SENSOR WIRING DIAGRAMS & MOUNTING DETAILS ON SHEET E6.01.
- 3 POWER PACKS SERVING OCCUPANCY SENSORS MOUNTED IN GYP BOARD CEILINGS SHALL BE LOCATED IN ACCESSIBLE ATTIC SPACE ABOVE. IF ATTIC SPACE ABOVE IN INACCESSIBLE, MOUNT POWER PACK IN FLUSH CEILING OUTLET BOX WITH BLANK COVERPLATE.
- (4) CIRCUIT VIA LIGHTING CONTROL PANEL "LCP". REFER TO LIGHTING CONTROL DIAGRAM AND SCHEDULES ON SHEET E8.02 FOR ADDITIONAL
- 5 PROVIDE NON-SWITCHED CONDUCTOR FOR EMERGENCY BATTERY PACKS, NIGHT LIGHTS, AND EXIT LIGHT FIXTURES.
- 6 LOW VOLTAGE LIGHTING CONTROL SWITCH FOR CONTROL OF ZONE INDICATED. REFER TO LIGHTING CONTROL DIAGRAM AND SCHEDULES ON SHEET E8.02 FOR ADDITIONAL INFORMATION. PROVIDE AN ENGRAVED NAMEPLATE AT EACH SWITCH DESIGNATING WHAT ZONE OR GROUP OF LIGHT FIXTURES THAT SWITCH CONTROLS - REFER TO SCHEDULES ON SHEET E8.02 FOR ZONE DESCRIPTIONS.
- (7) CEILING MOUNTED POE WIRELESS ACCESS POINT SHOWN ON LIGHTING PLAN FOR COORDINATION WITH CEILING GRID, LIGHT FIXTURES, GRILLS, ETC. FIELD COORDINATE AS REQUIRED, BUT STAY WITHIN 2' - 4' OF LOCATION INDICATED.
- 8 UP AND DOWN LAMPS OF TYPE N2/N2E FIXTURES SHALL BE SWITCHED SEPARATELY AS INDICATED - DOWN LAMPS SHALL BE ON CIRCUIT #6 AND UP LAMP SHALL BE ON CIRCUIT #8.
- (9) MOUNT EMERGENCY FIXTURE HIGH, NEAR CEILING.



P.O. Box 94798 - North Little Rock, AR 72190 501.379.9693 Phone - 501.379.9712 Fax AEC Job #: 0304.14.003



05/12/15 ADDENDUM #02

3700 eph

ARKANŚAS * * * REGISTERED **PROFESSIONAL** ENGINEER No. 10036

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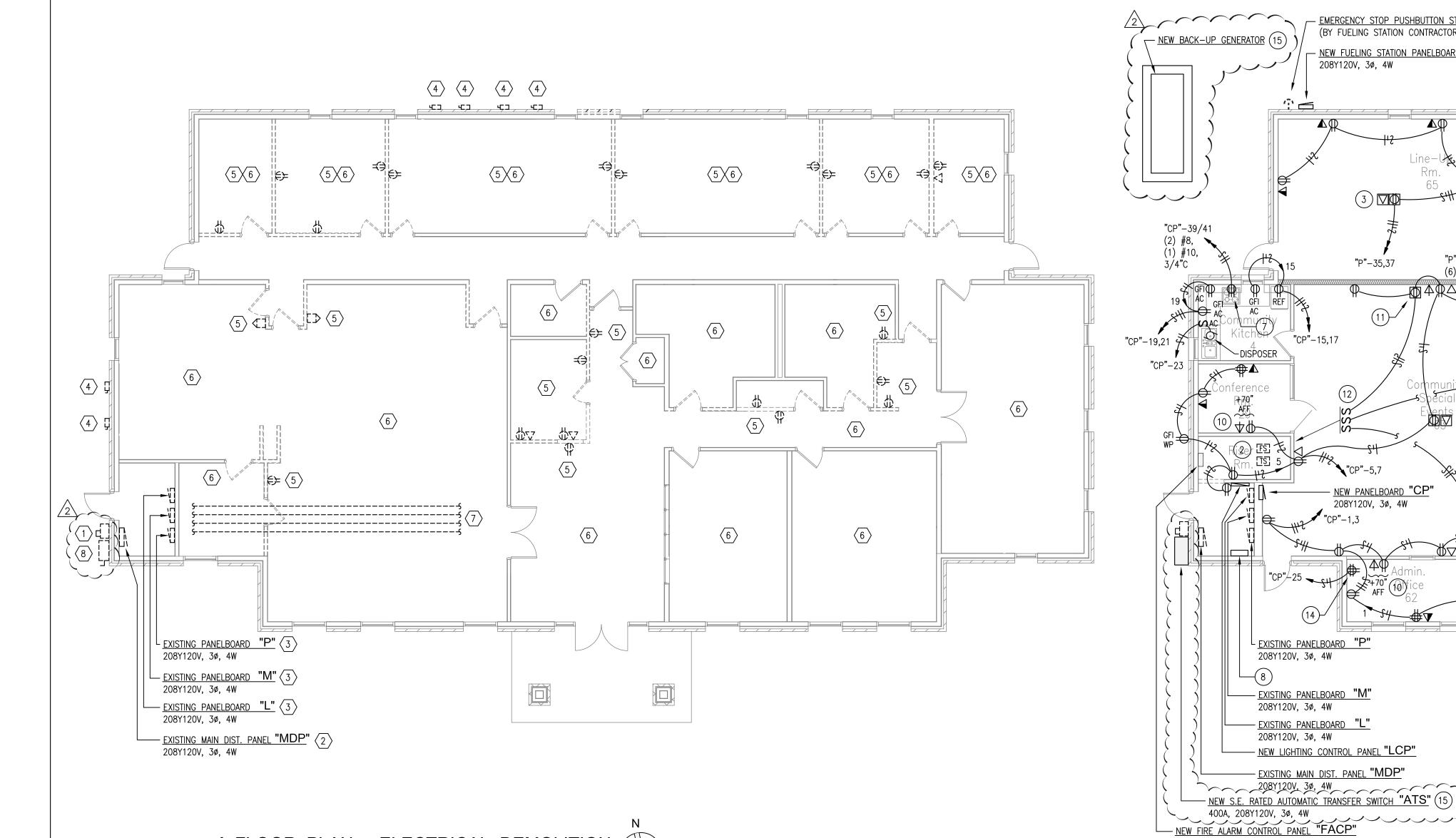
PROJECT NUMBER:

CO46.13 SHEET ISSUE DATE:

03-18-2015

FLOOR PLAN LIGHTING & LIGHT FIXTURE SCHEDULE

SHEET NUMBER:



1 FLOOR PLAN - ELECTRICAL DEMOLITION

KEYED DEMOLITION NOTES: $\overline{\underline{}}$

- (1) EXISTING METERING TO REMAIN VERIFY AND COORDINATE WITH ENTERGY. 2 EXISTING MAIN DISTRIBUTION PANEL TO REMAIN.
- (3) EXISTING PANELBOARD TO REMAIN AND TO BE REUSED TO SERVE NEW LIGHTING & POWER BRANCH CIRCUITS AS SHOWN.
- 4 REMOVE EXISTING DISCONNECT SWITCH AND ALL RELATED BRANCH CIRCUIT WIRE AND CONDUIT. INACCESSIBLE CONDUIT MAY BE ABANDONED IN PLACE - REMOVE CONDUCTORS IN THEIR ENTIRETY. FILL WITH GROUT AND SEAL REMAINING CONDUIT PENETRATION IN MASONRY WALL.
- (5) WALLS SHOWN DASHED ARE EXISTING WALLS TO BE DEMOLISHED. ROUGH-INS (BOXES, CONDUIT, & POSSIBLE WIRE IN SOME LOCATIONS) FOR DEVICES INDICATED IN THESE WALLS ARE ALREADY INSTALLED AND WILL HAVE TO BE DEMO'ED BY THE ELECTRICAL CONTRACTOR.
- 6 ALL OTHER EXISTING WIRING DEVICE, DATA/TELECOMM/ FIRE ALARM/ETC. ROUGH-INS (BOXES & CONDUIT) IN EXISTING-TO-REMAIN WALLS MAY BE REUSED TO ACCOMODATE NEW DEVICES WHERE SUCH EXISTING ROUGH-IN OCCURS AT SAME LOCATION OF NEW DEIOVCE INDICATED ON THE POWER AND SYSTEMS PLANS. IF NO NEW DEVICE IS SHOWN AT AN EXISTING ROUGH-IN LOCATION, THEN ROUGH-IN BOX AND EMPTY CONDUIT TO ABOVE CEILING MAY REMAIN AND A BLANK COVERPLATE SHALL BE INSTALLED ON THE OUTLET BOX.
- (7) EXISTING BRANCH CIRCUIT CONDUIT ALREADY ROUGHED IN MAY BE REUSED IF AND WHERE POSSIBLE.
- WHERE PUSSIBLE. 8 EXISTING 400A MAIN DISCONNECT TO DISCONNECTED AND REMOVED AND REPLACED WITH NEW SERVICE ENTRANCE RATED 400A AUTOMATIC TRANSFER SWITCH AS SHOWN AND SPECIFIED ELSEWHERE ON THESE DRAWINGS.

GENERAL DEMOLITION NOTES:

- 1. LIGHT FIXTURES, DEVICES, & EQUIPMENT SHOWN WITH DASHED LINES INDICATES
- 2. THE ELECTRICAL CONTRACTOR SHALL BE REQUIRED TO VISIT THE SITE TO FAMILIARIZE HIMSELF WITH ALL EXISTING CONDITIONS PRIOR TO THE BID.

"P"-40/42 (2)(TYP. OF 4) "P"-2/4 —(1) (TYP. OF 2) "P"-26,28

3 ENLARGED PLAN - POWER

ENLARGED PLAN KEYED NOTES:

- (1) QUADPLEX OUTLET ON DEDICATED CIRCUIT FOR RACK POWER MOUNT ON SIDE OF LADDER TRAY AND ROUTE ASSOCIATED CONDUIT ATTACHED TO LADDER TRAY, OVER TO WALL, THEN TO ABOVE CEILING, AND
- (2) NEMA L6-20R RECEPTACLE FOR RACK MOUNTED UPS POWER MOUNT ON SIDE OF LADDER TRAY AND ROUTE ASSOCIATED CONDUIT ATTACHED TO LADDER TRAY, OVER TO WALL, THEN TO ABOVE CEILING, AND HOMERUN.

7 FLOOR PLAN - POWER SCALE 1/8" = 1' - 0"

EXISTING PANELBOARD "P"

- EXISTING PANELBOARD "M"

- EXISTING PANELBOARD "L"

— NEW LIGHTING CONTROL PANEL "LCP"

— <u>existing main dist. panel **"MDP**"</u>

NEW S.E. RATED AUTOMATIC TRANSFER SWITCH "ATS" (15)

208Y120V, 3ø, 4W /2

208Y12OV, 3ø, 4W

208Y12OV, 3ø, 4W

208Y120V, 3ø, 4W

(1) "CLEAN GROUND" BUS BAR - REFER TO "GROUNDING BUS BAR DETAIL" ON SHEET E7.02.

NEW PANELBOARD "CP" 208Y120V, 3ø, 4W

— EMERGENCY STOP PUSHBUTTON STATION (9)

"P"-22,24 (6) #10, 1"C

(6) #10, 1"C

Office

208Y120V, 3ø, 4W

- (2) E.C. SHALL MAKE REQUIRED FIRE ALARM CONNECTIONS TO FLOW & TAMPER SWITCHES - FIELD-VERIFY EXACT LOCATIONS & QUANTITIES.
- (3) FLUSH OUTLET BOXES MOUNTED IN LAY-IN CEILING REFER TO "CEILING MOUNTED OUTLET/CORD DROP DETAIL" ON SHEET E6.01.
- (4) FLUSH OUTLET BOXES MOUNTED IN GYP BOARD CEILING.
- (5) QUADPLEX OUTLET ON DEDICATED CIRCUIT FOR RACK POWER MOUNT ON SIDE OF LADDER TRAY AND ROUTE ASSOCIATED CONDUIT ATTACHED TO LADDER TRAY, OVER TO WALL, THEN TO ABOVE CEILING, AND
- (6) NEMA L6-20R RECEPTACLE FOR RACK MOUNTED UPS POWER MOUNT ON SIDE OF LADDER TRAY AND ROUTE ASSOCIATED CONDUIT ATTACHED TO LADDER TRAY, OVER TO WALL, THEN TO ABOVE CEILING, AND
- (7) NEMA 6-50R OUTLET FOR CONNECTION OF ELECTRIC RANGE. FIELD-VERIFY EXACT REQUIREMENTS AND ADJUST AS REQUIRED.
- (8) 24" x 24" x 8"D SCREW COVER, NEMA 1 PULL BOX FOR DATA/TELECOMM & SIGN DATA. REFER TO SYSTEMS PLAN ON SHEET
- (9) EMERGENCY STOP PUSHBUTTON ACTIVATES SHUNT TRIP MAIN CIRCUIT BREAKER IN FUELING STATION PANELBOARD "FS". ELECTRICAL CONTRACTOR SHALL FURNISH & INSTALL AND MAKE THE 120V CONTROL CIRCUIT CONNECTION.

(10) VERIFY EXACT LOCATION OF CATV OUTLETS WITH OWNER PRIOR TO ROUGH-IN & INSTALLATION.

REFER TO ENLARGED PLAN ON THIS SHEET

FOR ADDITIONAL WORK

THIS AREA

- 11) FLUSH OUTLET BOX MOUNTED IN GYP BOARD CEILING WITH SWITCHED RECEPTACLE FOR MOTORIZED PROJECTION SCREEN. VERIFY EXACT LOCATION WITH OWNER PRIOR TO ROUGH-IN & INSTALLATION.
- 12) VERIFY EXACT LOCATION OF MOTORIZED PROJECTION SCREEN SWITCHES WITH OWNER PRIOR TO ROUGH-IN & INSTALLATION. SWITCHES SHALL BE MOMENTARY TYPE, TYPICALLY PROVIDED WITH MOTORIZED PROJECTION SCREEN. FIELD-VERIFY EXACT REQUIREMENTS.
- (13) GENERATOR REMOTE ANNUNICATOR REFER TO GENERATOR SPECIFICATION. FIELD-VERIFY EXACT DESIRED LOCATION WITH OWNER PRIOR TO ROUGH-IN & INSTALLATION. REFER ALSO TO "POWER RISER DIAGRAM - RENOVATION" ON SHEET E7.01 FOR CONNECTION REQUIREMENTS.
- (14) QUADPLEX OUTLET ON DEDICATED CIRCUIT SURFACE MOUNTED INSIDE NETWORK CABLE BOX - REFER TO "WALL MOUNTED NETWORK CABLE BOX DETAILS" ON SHEET E7.02. REFER ALSO TO SYSTEMS PLAN ON SHEET E5.01 FOR PROPOSED NETWORK CABLE BOX LOCATION, (TO BE CONFIRMED WITH OWNER).
- CONTINUED WITH OWNER). (15) REFER TO "POWER RISER DIAGRAM — RENOVATION" ON SHEET E7.01.





501.379.9693 Phone - 501.379.9712 Fax

AEC Job #: 0304.14.003

1101 CUMBERLAND STREET LITTLE ROCK, ARKANSAS 72203 501.372.4199 OFFICE 501.372.4198 FAX COPYRIGHT © 2012 CARADINE@CARADINE.COM REVISION:

Rm.

05/12/15 ADDENDUM #02

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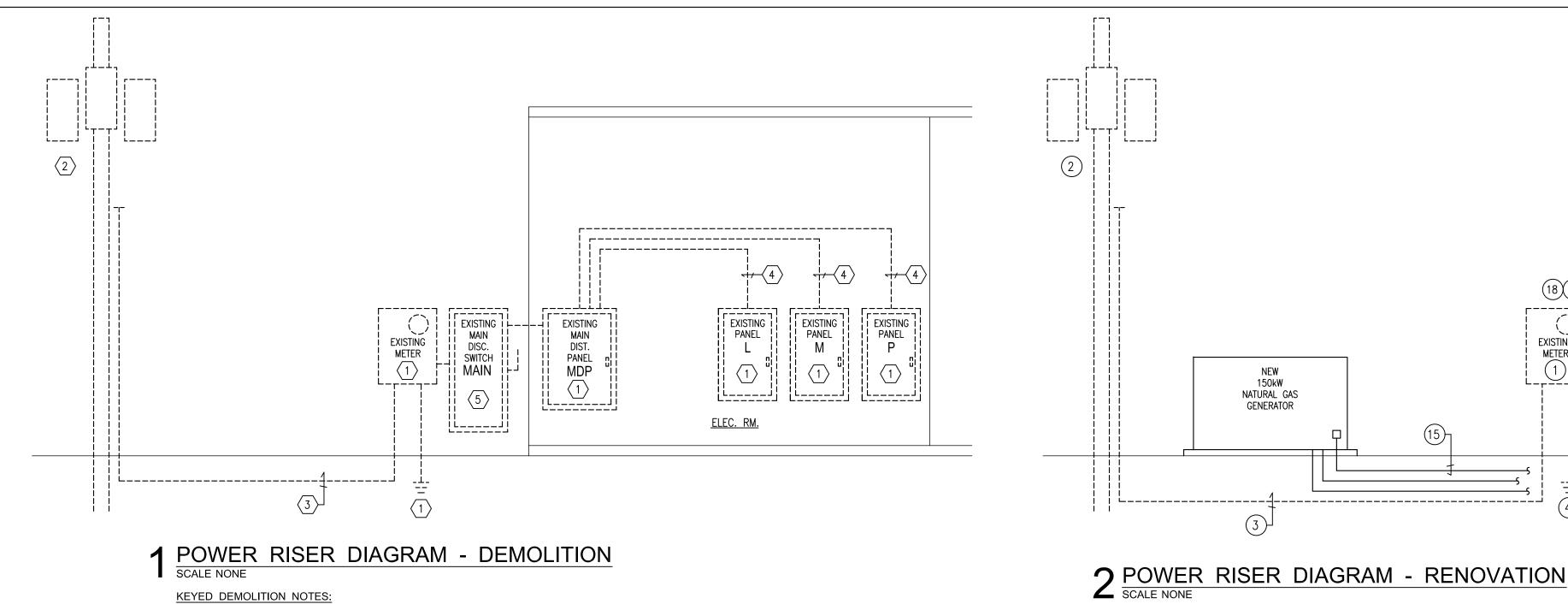
ARKANSAS $\star\star\star$ REGISTERED **PROFESSIONAL** ENGINEER NO. 10036

PROJECT NUMBER:

CO46.13 SHEET ISSUE DATE: 03-18-2015

FLOOR PLANS ELECTRICAL DEMOLITION & POWER

SHEET NUMBER: E4.01



- $\langle 1 \rangle$ EXISTING TO REMAIN.
- $\langle 2 \rangle$ EXISTING UTILITY POLE AND 3-PHASE TRANSFORMER BANK.
- (3) EXISTING UNDERGROUND SECONDARY.

- METAL WATER PIPE IN DIRECT CONTACT WITH

— MAIN GROUNDING

ELECTRODE

GROUND BAR

- #4/0 W/ 600V INSULATION

TELECOMMUNICATIONS ROOM

(5)

2

(8)

5/8" x 10'

GROUND ROD ----

EARTH FOR A LENGTH OF 10' OR MORE

- 4 EXISTING FEEDER TO REMAIN.
- DISCONNECT & REMOVE EXISTING MAIN DISCONNECT SWITCH AND REPLACE WITH NEW SERVICE ENTRANCE RATED ATS AS SHOWN ON THE RENOVATION POWER RISER DIAGRAM ON THIS SHEET.

KEYED NOTES:

PAD-MOUNTED

TRANSFORMER

r------+---

NEUTRAL

NEUTRAL

GROUND

GROUND

3

GROUND NEUTRAL

208Y120 VOLT

PANELBOARD

2

(DELTA-WYE CONNECTION)

SERVICE ENTRANCE

| TRANSFER SWITCH

| 208Y/120 VOLT

MAIN DIST. PANEL

| EQUIPMENT - AUTOMATIC

- (1) INSTALL GROUNDED (NEUTRAL) CONDUCTOR SAME SIZE AS THE LARGEST PHASE CONDUCTOR IF THE LINE-TO-NEUTRAL LOAD EXCEEDS 5% OF THE CONNECTED LOAD. IF NEUTRAL LOAD IS SMALLER, INSTALL THE NEC MINIMUM GROUNDED CONDUCTOR.
- (2) INSTALL GROUNDING ELECTRODE CONDUCTOR, SIZED BASED ON NEC TABLE 250.66 USING THE SERVICE PHASE CONDUCTOR SIZE, BUT NOT SMALLER THAN 4 AWG.

1) EXISTING TO REMAIN.

ON THIS SHEET.

(5) EXISTING FEEDER TO REMAIN.

(3) EXISTING UNDERGROUND SECONDARY.

(2) EXISTING UTILITY POLE AND 3-PHASE TRANSFORMER BANK.

(6) CONNECT TO EXISTING 60A/3P CIRCUIT BREAKER IN EXISTING "MDP".

EXISTING SYSTEM GROUNDING ELECTRODE CONDUIT ROUGH-IN. THE ELECTRICAL

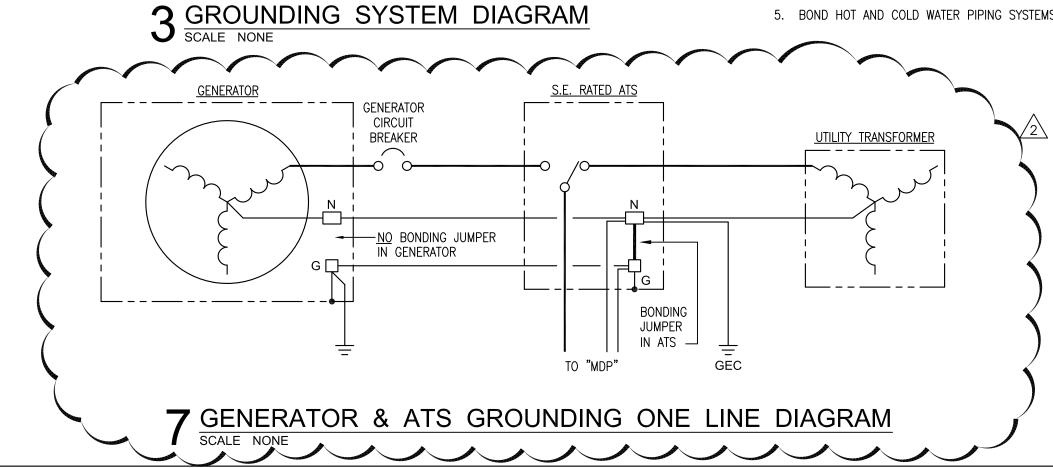
CONTRACTOR SHALL COMPLETE GROUNDING ELECTRODE AND GROUNDING ELECTRODE

CONDUCTOR INSTALLATION AS REQUIRED. REFER TO "GROUNDING SYSTEM DIAGRAM"

- (3) INSTALL EQUIPMENT GROUNDING CONDUCTOR SIZED BASED ON NEC TABLE 250.122 USING THE FEEDER OVERCURRENT DEVICE SIZE.
- 4 BOND TO PIPE ON THE BUILDING SIDE OF ANY METERS.
- (5) INSTALL A "MAIN GROUND ELECTRODE GROUND BAR" FOR SINGLE POINT GROUNDING. LOCATE AT AN ACCESSIBLE AND VISIBLE POINT NEAR THE SERVICE ENTRANCE EQUIPMENT. MAKE CONNECTIONS TO THE GROUND BAR USING TWO-HOLE COMPRESSION SPADE LUGS THAT MEET IEEE 837 REQUIREMENTS. LABEL EACH CONNECTION TO THE GROUND BAR.
- (6) INSTALL A COPPER GROUNDING BAR IN TELECOMMUNICATIONS SERVER ROOM. CONNECT TO THE "MAIN GROUNDING ELECTRODE GROUND BAR" USING 600V INSULATED 4/0 AWG COPPER CABLE AND COMPRESSION SPADE LUGS.
- 7 INSTALL BONDING CONDUCTOR THAT IS SIZED BASED ON NEC TABLE 250.66 USING THE SERVICE OR SEPARATELY-DERIVED SYSTEM PHASE
- 8 INSTALL IRREVERSIBLE COMPRESSION CONNECTOR WITH TAMPER-PROOF HARDWARE OR INSTALL EXOTHERMIC WELD.

GENERAL NOTES:

- 1. CONDUCTOR SIZES SHOWN ARE MINIMUM AND MAY BE LARGER THAN THE MINIMUM SIZES REQUIRED BY NEC.
- 2. INSTALL GROUNDING CONNECTIONS TO BUILDING STRUCTURE AND WATER PIPES AT LOCATIONS THAT ARE VISIBLE AND ACCESSIBLE FOR INSPECTION, MAINTENANCE, AND TESTING.
- 3. INSTALL AN INSULATED THROAT GROUNDING BUSHING ON EACH METALLIC SERVICE ENTRANCE CONDUIT. BOND TO GROUND BUS USING CONDUCTOR THAT IS SIZED BASED ON NEC TABLE 250.66 USING THE SERVICE PHASE CONDUCTOR SIZE.
- 4. INSTALL AN INSULATED THROAT GROUNDING BUSHING ON EACH METALLIC FEEDER CONDUIT. BOND TO GROUND BUS USING CONDUCTOR THAT IS SIZED BASED ON NEC TABLE 250.122 USING THE FEEDER CIRCUIT OVERCURRENT DEVICE SIZE OR THE SEPARATELY DERIVED SYSTEM OVERCURRENT DEVICE SIZE.
- 5. BOND HOT AND COLD WATER PIPING SYSTEMS.



(7) FURNISH & INSTALL A NEW 150A/3P CIRCUIT BREAKER IN AVAILABLE SPACE IN EXISTING "MDP". THE NEW CIRCUIT BREAKER SHALL BE OF THE SAME MANUFACTURER AS THE DISTRIBUTION PANEL AND SHALL BE THE SAME TYPE AND HAVE THE SAME INTERRUPTING RATING AS EXISTING CIRCUIT BREAKERS ALREADY INSTALLED IN THE PANEL. POWER RISER KEYED NOTES:

18 19

EXISTING

NEW S.E.

RATED

AUTOMATIC

가 TRANSFER

SWITCH

ATS

8 BRANCH CIRCUITS OUT TO FUELING STATION. REFER TO "FUELING SYSTEM RISER DIAGRAM" ON THIS SHEET.

--- | -------|-----

i existing i

i existing i

CONNECT TO EQUIPMENT

GROUND BAR —

i existing

- (9) REFER TO "FUELING STATION PANELBOARD INSTALLATION DETAIL" ON THIS SHEET.
- (10) (4) #6 AND (1) #10 EQUIPMENT GROUND IN 1" CONDUIT.

EXISTING | 1

MDP

2021 6 7

- (11) (4) #1/0 AND (1) #6 EQUIPMENT GROUND IN 1-1/2" CONDUIT.
- 12) ANTI-CONDENSATION HEATER INSIDE ATS.
- 13) ATS HEATER CIRCUIT: (3) #12 IN 3/4" CONDUIT. (14) GENERATOR BLOCK HEATER AND BATTERY CHARGER CIRCUITS.

(1) BELDON #9841 & (2) #14 THHN (FOR GENSET ANNUNCIATION) AND (2) #12 THHN (FOR REMOTE START SIGNAL) IN 1" CONDUIT FROM GENERATOR CONTROLLER TO ATS CONTROLLER. THE UNDERGROUND RATED, SHIELDED, 2-CONDUCTOR CABLE FOR RS-485 MODBUS PROTOCOL TO ENERGEY MANAGEMENT SYSTEM (EMS) SHALL ALSO BE RUN IN THIS CONDUIT - SPECIFIC CABLE SPEC SHALL BE PER EMS MANUFACTURER.

FUELING

STATION

PANEL

FS

- (1) BELDON #9841 & (2) #14 THHN IN 1" CONDUIT FROM ATS CONTROLLER TO RÉMOTE ANNUNICATOR.
- GENERAROR REMOTE ANNUNCIATOR FIELD-VERIFY DESIRED LOCATION WITH OWNER PRIOR TO ANY ROUGH-IN & INSTALLATION.
- (18) (2) SETS: (4) #3/0 & (1) #1/0 GROUND IN 2" CONDUIT.

NEW

PANEL

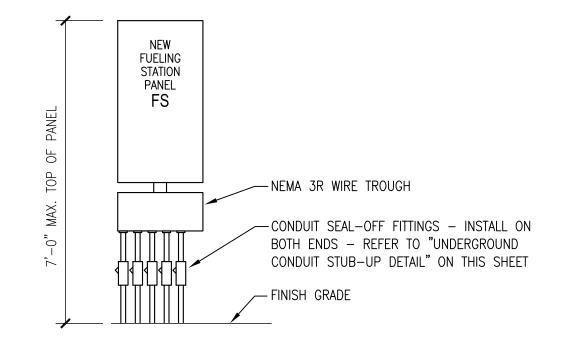
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SPEC. EVENTS 63

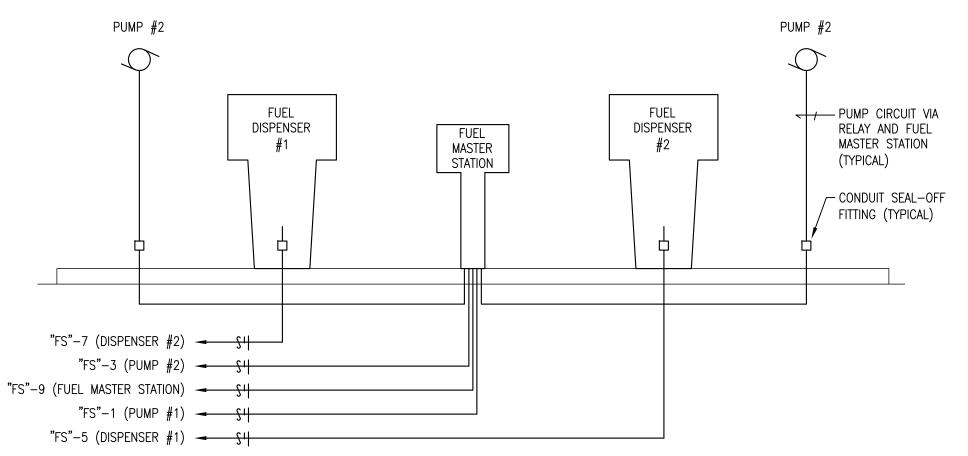
- (19) REWORK EXISTING FEEDER BETWEEN METER AND MAIN AS SPECIFIED.
- (20) (2) SETS: (4) #3/0 & (1) #3 GROUND IN 2" CONDUIT.
- (21) REWORK EXISTING FEEDER BETWEEN ATS AND MDP AS SPECIFIED.
- SHIELDED, 2-CONDUCTOR CABLE FOR RS-485 MODBUS PROTOCOL FROM GENERATOR AND ATS (DAISEY CHAIN CONNECTION) IN 3/4" CONDUIT HOMERUN TO ENERGEY MANAGEMENT SYSTEM (EMS) MODBUS/DRY CONTACT LOCATION IN SERVER ROOM - FIELD-VERIFY EXACT LOCATION WITHIN SERVER ROOM. SPECIFIC CABLE SPEC SHALL BE PER EMS MANUFACTURER.

- INSULATED BUSHING FOR BRANCH

CIRCUIT CONDUCTOR PROTECTION

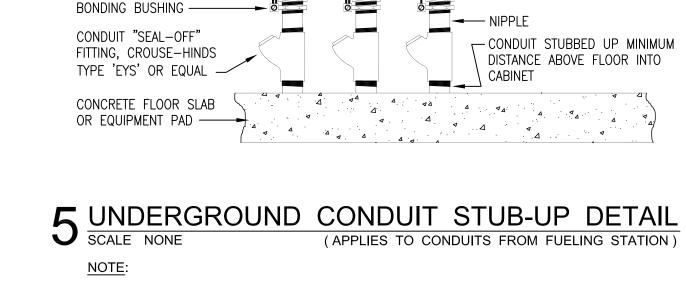


FULEING STATION PANELBOARD INSTALLATION DETAIL

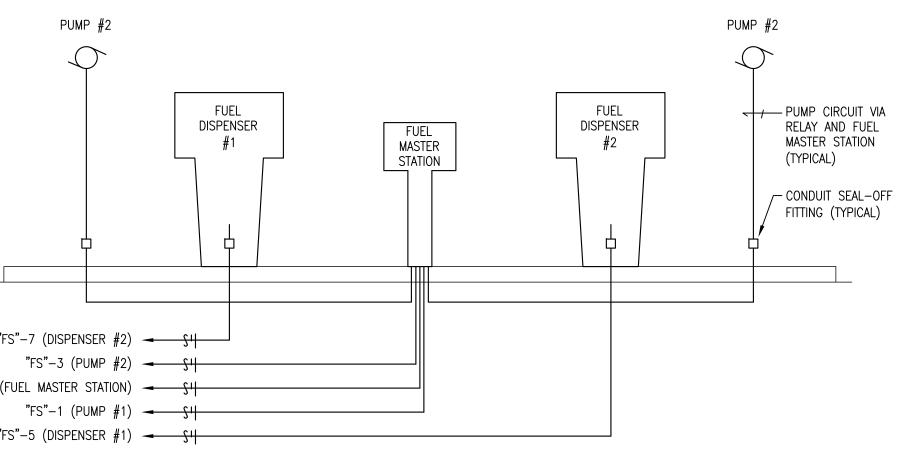


6 FUELING SYSTEM RISER DIAGRAM

THE ABOVE RISER IS DIAGRAMATIC ONLY AND INTENDED TO SHOW GENERAL INTENT/SCOPE OF WORK ONLY. THE ELECTRICAL CONTRACTOR SHALL CLOSELY COORDINATE WITH FUELING STATION VENDOR/INSTALLER AND SHALL CONFIRM EXACT CONDUIT ROUTING, STUB-UP LOCATIONS, SPECIFIC ELECTRICAL WIRING & CONNECTION REQUIREMENTS. THE ELECTRICAL CONTRACTOR SHALL MAKE ALL REQUIRED ELECTRICAL CONNECTIONS. ALL LOW VOLTAGE WIRING (DATA, CONTROLS, ETC.) SHALL BE BY THE FUELING STATION VENDOR/INSTALLER UNLESS OTHERWISE NOTED.



- 1. THE UNDERGROUND CONDUITS SHOWN REPRESENT TYPICAL INSTALLATION METHODS.
- 2. CONDUIT SEAL-OFFS REQUIRED FOR ALL CONDUIT ORIGINATING FROM HAZARDOUS AREAS (TYP.)



ARCHITECTURAL ENGINEERING CONSULTANTS, LLC. -

P.O. Box 94798 - North Little Rock, AR 72190 501.379.9693 Phone - 501.379.9712 Fax AEC Job #: 0304.14.003



REVISION:

05/12/15 ADDENDUM #02

> ARKANŚAS $\star\star\star$ REGISTERED **PROFESSIONAI** ENGINEER

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PROJECT NUMBER: CO46.13

SHEET ISSUE DATE: 03-18-2015

ELECTRICAL **RISERS & DETAILS**

SHEET NUMBER:

E7.01